

Ladies and gentlemen:

I am approaching my presentation from the perspective of agriculture and the landscape. I hold a degree in agriculture and worked in that field for over 30 years, some of those years as a farm owner. I also hold a Masters degree in landscape architecture.

My introduction to the Bipole III topic came several years ago when the University of Manitoba hosted a panel to discuss the issue, including alternate routes. The room was packed. Two things stuck in my mind.

One was MLA Rob Altemeyer who gave a short presentation and then left, refusing to take any questions. That action said to me that the government either views this issue as inconsequential because one of its representatives could not make time in his schedule to meet about it or the government thinks so little of its constituents that it didn't need to converse with them. As a citizen of Manitoba, I take exception to that attitude.

What made a far greater impression on me was a university professor who showed the audience a map of the vast area of the boreal forest east of Lake Manitoba. In order to put into perspective the physical impact of a transmission line on the boreal forest, he said "Now imagine a pencil line being drawn north to south on that map. That represents the amount of land that the hydro line would occupy." I thought – well, any other route is a non-starter – except perhaps one under the lake which was also presented at this meeting and intrigued me.

Words cannot describe my disbelief when I finally saw the actual proposed route west of the lake. To call it a route west of the lake is a misnomer. It is a route through western and southern Manitoba – nowhere near Lake Winnipeg.

It is a route that goes through agricultural land, prime crop land – some of the best in the province. Prior to the last election, the government released numbers about how much agricultural land would be taken out of production. The statement was attributed to Rosann Wowchuk, then finance minister and former agriculture minister. The number was so nominal that I couldn't figure out how it was arrived at. Turns out the calculation included only the land immediately underneath each tower. How disingenuous. The impact on farmers and agriculture is far greater than just the land removed from production underneath the towers.

My husband was raised on a farm in the Interlake that hosted the first set of hydro towers from Grand Rapids in the 1960's. Even with a one percent deviation in the route so that the towers didn't run between the barn and the house, his family lost their eastern and a portion of their northern shelterbelt. To those who live in urban spaces, a shelterbelt may not seem important, but to those on rural properties, a shelterbelt creates a micro-climate that saves energy in heating homes, reduces the snow accumulation in the yardsite, and contributes to animal and human comfort and convenience. I am reminded that Manitoba Hydro is always telling us to be energy smart and save energy.

More importantly, the towers were a challenge to operate around. My husband recounts the story of one harvest when his dad forgot about his proximity to a tower and neglected to lift the unloading auger on his combine. You can imagine what happened. A farmer doesn't need any equipment out of commission during harvest. That was a tower with a square base; towers with guy-wires were even more difficult to manoeuvre around. My father-in-law's experience was at a time when equipment was much smaller and his was the smallest of the small. So you can imagine the difficulties these towers will introduce to a farming operation today in reduced efficiency from having to manoeuvre around the towers, in unseeded acreage because of the difficulty of making numerous tight turns around towers, and in the risk of damaging equipment and injuring operators, not to mention the risks for custom and aerial applicators.

I find it hard to believe that the government believes a few square kilometres of boreal forest is of more significance to the well-being of the province than farmers' ability to farm effectively and safely as part of a sector that feeds Manitobans and contributes thousands of jobs to the economy.

For another anecdote – as an aside I've found over the years that anecdotes are far more effective than facts and figures – when I was very much younger, we were renovating our house. We had to move the fridge. I plugged it into a very long extension chord. The fridge didn't seem to be doing quite the same job it did before the move. It was explained to me that the longer the chord, the more energy that is lost along the transmission distance and the harder my fridge had to work.

With this episode in mind, I can't comprehend how Manitoba Hydro and our government can justify proposing a transmission route that is nearly 500 km longer than necessary. This is such

a waste of resources. It is an approach that I don't understand coming from a government that prides itself on being green-aware and that has made such strides in recycling, reusing and reducing. While the government may feel it is being green by keeping the transmission lines out of the boreal forest east of the lake, it is really false environmental economy. When the expenditure of resources outweighs the savings in resources, the project is not environmentally friendly.

From a landscape perspective, it is a false premise that undisturbed nature is significantly more valuable than that in which humans participate. If I can refer to that age old question, if a tree falls in the forest, does anyone hear it? Similarly, if a few acres are kept pristine, do they have any impact in the scheme of things when thousands of acres are unnecessarily and willfully disturbed?

Many studies<sup>1</sup> have been done that show that people who have access to green space in built environments show improvements in mental health and well-being. For workers in office buildings and patients in hospitals, this access need only be visual to show a decrease in stress and an improvement in health.

I have to wonder about the psychological impact of a disfigured green space on thousands of rural Manitobans when their horizons are unnecessarily scarred by hydro wires and towers. A Manitoba sunset will just not be the same with hydro towers silhouetted against the skyline. That will just be a little difficult to Photoshop out.

All kidding aside, though, one of the concern's of a landscape architect is how people impact the landscape and how the landscape impacts people and to find solutions that mitigate those impacts for the immediate and long-term. In the case of Bipole III, the appropriate resolution would be to abandon the proposed western route.

Deep ecologists, and even those environmentalists that are less so, will accuse me of being anthropocentric. I care about the forest and the natural environment and humankind's

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<sup>1</sup> <http://hortsci.ashspublications.org/content/43/1/183.full>  
[http://www.goert.ca/developers\\_government/benefits.php](http://www.goert.ca/developers_government/benefits.php)  
<http://webarchive.nationalarchives.gov.uk/20110118095356/http://www.cabe.org.uk/publications/community-green/health-and-wellbeing>

relationship with it; but when there is a solution that benefits humans with limited impact on nature that is the solution I will accept – if that is being anthropocentric so be it. Any discussion of Bipole III's western route is purely an ideological environmental one. It can be nothing else because it's not cheaper, it's not less disruptive, it's not more "green," and it's not necessary. Ideology is a very poor basis for making public policy.

As a final note, I would like to say that I am appalled that Manitoba Hydro and the provincial government refuse to listen to the many credible professionals who have come out against the western route for Bipole III. I have been acquainted with one of those professionals, Dr. Garland LaLiberte, for more than 30 years, and I have immense respect for him.

In closing, I understand that this commission has not been given the mandate to look at alternatives to the western route. If that is the case, then I would suggest the only recommendation that the commission can make is to abandon the route.

#### Addendum

If I could add an addendum to my comments. It's related to my comments earlier on about shelterbelts. After I had finished writing this presentation yesterday, I found myself reading some of the presentations from the Portage meeting. There was an exchange between some of the commissioners and representatives of Manitoba Hydro about shelterbelts that may be fully or partially removed during the construction of Bipole III towers.

While I am not an expert on shelterbelts, I do know there is a bit of science to it as far as placement and species. There is more to it than just replacing trees.

What type of shelter belt is being replaced? Is it young or mature; field or yard. The size and type of tree affects how the wind acts on the lee side of the belt. The height of the trees affects where turbulent and calm areas on the lee side of the shelterbelt will occur.

Mature shelterbelts are irreplaceable; removing them and replacing them with young trees can significantly change microclimates and affect snow deposition and wind speed. In the case of a yard shelterbelt, partial removal can create a wind tunnel; substantially change the climate of

the yard, and in the case of livestock operations possibly affect odor distribution. In the case of field shelterbelts, the location of the towers and the required size of the right of way could make the relocation of the shelterbelt ineffective depending on field size, could take more land out of production, or could make working around the shelterbelt and the tower very difficult.

With respect to types of trees, there are very few tree/shrub species that only grow to 12 or 15 feet so planting within the right of way is not all that practical. A question was also asked whether trees under the tower could be trimmed every 10 years or so. While I agree with the response from the Hydro representative that it is not possible, I do so for a different reason. If trimming were to be done, the only way that would approach cost effectiveness would be to top the trees. One arborist told me topping is known as tree murder. Why? Because a tree can't heal its wounds unless a branch is removed back to where it connects with a larger branch. A topped tree is then susceptible to insects and disease. Depending on how much of the top growth is removed, the trees longevity could be reduced as well.

One of the commissioners asked about the length of time it takes to re-establish a shelterbelt. The answer was a couple of years for poplars, longer for other species. Generally speaking, the faster a tree grows the shorter-lived it is. The Agroforestry Development Centre, formerly PFRA, estimates that Siberian elm and several of the commonly planted poplars have a lifespan of 10 to 25 years.<sup>2</sup> Given Manitoba's climate, it takes a very long time for trees to reach a mature height. For coniferous trees to reach a reasonable shelterbelt size, 25 to 30 years is not out of the question, and then they can be only a third to a half of their mature size.

Lastly reducing the presence of shelterbelts on the landscape or replacing older trees with young ones reduces carbon sequestration capacity something that should be taken into consideration, given the current concerns over greenhouse gas.

In conclusion, we need to remember we are dealing with living things when we talk about trees. From my perspective, a mature-sized shelterbelt cannot be replaced.

Shelterbelt information from Agriculture and Agrifood Canada's Agroforestry Development Centre :

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<sup>2</sup> <http://www4.agr.gc.ca/AAFC-AAC/display-afficher.do?id=1192555304235&lang=eng>

Yard site

<http://www4.agr.gc.ca/AAFC-AAC/display-afficher.do?id=1192555304235&lang=eng>

Field shelterbelt information:

<http://www4.agr.gc.ca/AAFC-AAC/display-afficher.do?id=1192556664605&lang=eng>